MANAGERIAL ECONOMICS 621
Tentative Syllabus | Wharton Philadelphia, Fall 2010

## Instructors:

| Professor Katja Seim | Section Number | Location | Days | Time |
| :--- | :--- | :--- | :--- | :--- |
| Location: SH-DH 1457 | MGEC621-001 | JMHH 260 | TR | $9-10: 30$ |
| Email: kseim@ wharton.upenn.edu | MGEC621-003 | JMHH 260 | TR | $10: 30-12$ |
| Office Hours: TR, 3-4:30 | MGEC621-005 | JMHH 250 | TR | $1: 30-3$ |


| Professor Neil Doherty | Section Number | Location | Days | Time |
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| Location: SH-DH 3410 | MGEC621-007 | JMHH 265 | TR | $9-10: 30$ |
| Email: doherty @ wharton.upenn.edu | MGEC621-009 | JMHH 265 | TR | $10: 30-12$ |
| Office Hours: | MGEC621-011 | JMHH 255 | TR | $1: 30-3$ |


| Professor Albert Saiz | Section Number | Location | Days | Time |
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| Location: SH-DH 1466 | MGEC621-013 | JMHH 360 | TR | $9-10: 30$ |
| Email: saiz@ wharton.upenn.edu | MGEC621-015 | JMHH 360 | TR | $10: 30-12$ |
| Office Hours: Wed, 9-12 | MGEC621-017 | JMHH 350 | TR | $1: 30-3$ |


| Professor Kent Smetters | Section Number | Location | Days | Time |
| :--- | :--- | :--- | :--- | :--- |
| Location: SH-DH 3303 | MGEC621-019 | JMHH 370 | TR | $9-10: 30$ |
| Email: smetters@ wharton.upenn.edu | MGEC621-021 | JMHH 370 | TR | $10: 30-12$ |
| Office Hours: | MGEC621-023 | JMHH 355 | TR | $1: 30-3$ |

## Text:

W. Bruce Allen, Neil Doherty, and Keith Weigelt, and Edwin Mansfield (ADWM), Managerial Economics, $7^{\text {th }}$ Edition, W. W. Norton, New York, 2009.

Available at the University of Pennsylvania Bookstore. This text is the same one used in MGEC 603/608 (Preterm MGEC). Please note that the $7^{\text {th }}$ Edition is significantly different than the $6^{\text {th }}$ Edition, especially for material covered by MGEC 621.

## Class Notes and Additional Exercises:

Class notes are provided in advance of each class on the course website. Please take a quick read through them before class, including the attached reading (if any). In some cases, you will notice "blanks" in the slides / notes, which are designed to motivate classroom discussion and promote critical thinking. If you miss class then see a colleague to "fill in" the blanks; office hours are reserved for students who attend class.

Past exams and some additional problems for each class will also be distributed.

## Teaching Assistants:

Teaching Assistants are your "first line of defense" for answering questions about course material. Each TA has been screened for his/her competence.

Hours for TA's are shown in the Appendix to the Syllabus.

## Grading:

| Assessment | Due | \% of Grade |
| :--- | :--- | :---: |
| Homework \#1 | September 23, in class | $5 \%$ |
| Midterm Exam | September 28, 6-7:30PM, TBD | $35 \%$ |
| Homework \#2 | See Schedule, INSEAD Game | $5 \%$ |
| Homework \#3 | October 19, in class | $5 \%$ |
| Final Exam | October 22, 1-3PM, TBD | $50 \%$ |
| Total |  |  |

Note: Course grades will be "curved" at the instructor-level across his/her sections, i.e., not across all sections.

## Review Sessions:

Teaching Assistants will hold reviews for both the Midterm and Final Exams, at dates and times to be announced on Webcafe.

# MANAGERIAL ECONOMICS 621: Topics and Readings 

Thursday, September 9. 2010

## LECTURE 1: INTRODUCTION, MOTIVATION AND REVIEW

## Sophisticated Pricing Strategies

Tuesday, September 14. 2010
LECTURE 2: Two-Part Tariffs

Background: Continues the pre-term discussion of pricing when a firm has market power. A two-part tariff is a sophisticated way to a firm to increase their profits by capturing more consumer surplus. This type of pricing is used extensively by country clubs, eating clubs, sports stadium personal seat licenses, phone company call plans.

Reading: ADWM, Chapter 8, "Managerial Use of Price Discrimination: Two-Part Tariffs:" 266-276

## Thursday, September 16. 2010

LECTURE 3: Transfer Pricing
Background: In a conglomerate world, company A and company B may be owned by the same parent company. If company $A$ uses the product of company $B$ as an input to their production process, the question of the appropriate price to be paid for B's product by A is a contentious one. Setting the right "transfer prices" aligns incentives and helps the parent company maximize profits. Examples include IT services within many companies and GE's internal consulting group.

Reading: ADWM, Chapter 9, "Bundling and Intra-Firm Pricing:" 317-327.

## Profit Maximizing Behavior in Oligopolistic Markets

Tuesday, September 21. 2010
LECTURE 4: Strategies in Duopolies I
Thursday, September 23. 2010
LECTURE 5: Strategies in Duopolies II (and catch up)
Background: In an oligopoly situation, we have competition among a few firms. This is the most common form of business competition in most large markets of the world: Coke vs. Pepsi, Intel vs. AMD, and so on. Within this general marketing setting, competition differs further among two dimensions: (1) the degree of market power / contestability and (2) the degree in which one party has a first-mover advantage. We explore how to maximize profits in each case.

Reading: ADWM, Chapter 10, "Oligopoly,": 334-361.

## Influencing Your Market Setting

Tuesday, September 28. 2010
LECTURE 6: The Static Setting
Background: The powerful tool of game theory is introduced and used to explore how you can influence your market setting in order to move from less to more profitable situations. In this lecture, we first investigate how to influence your market setting in a "static setting" where actions tend to be more "one off" and so the role of reputation is less important. We consider the incentives to collude with your competition as well as attempts to deter entry.

Reading: ADWM, Chapter 11, "Game Theory"
MIDTERM EXAM in the evening cover Lectures 1 - 5.

LECTURE 7: The Dynamic Setting
Background: We now extend our analysis to investigate how "reputation" influences your ability to collude or deter entry.

Reading: ADWM, Chapter 16, "Government and Business:" 567-570.

## Dealing with Asymmetric Information and Uncertainty

Tuesday, October 5. 2010
LECTURE 8: Auctions

Background: Auctions are used by sellers to obtain information on how much consumers value an item and to attempt to extract the highest possible price for the item. Examples include the Jackie Onassis possessions, the FCC communications spectrum, Treasury securities, and stock repurchases.

Reading: ADWM, Chapter 12, "Auctions"

Thursday, October 7. 2010
LECTURE 9: Decision making Under Uncertainty and Insurance
Background: Focusing on the expected return of an investment can be misleading. We discuss how to make decisions under uncertainty and the value of hedging against that uncertainty.

Reading: ADWM, Chapter 13, "Risk Analysis"

Tuesday, October 12. 2010
LECTURE 10: Adverse Selection

Background: Markets often fail in the presence of asymmetric information between buyers and sellers because only the "lemon" (low quality or high risk) is offered for sale (or wants to buy) in equilibrium. Examples abound from the sale of used cars, demand for insurance, and even trades of athletes. In some cases, government policy enhances the problem. We investigate how to use
"screens" and "signals" to deal with this business-critical problem.
Reading: ADWM, Chapter 15, Adverse Selection
Note: Some professors might prefer to teach the material in Lecture 11 before Lecture 10 .

Thursday, October 14. 2010

## LECTURE 11: Moral Hazard

Background: Moral hazard is a second type of problem that can occur in the presence of asymmetric information. A party changes its level of risk taking in response to the protection that he/she is provided, sticking more risk to the counterparty. The structure of executive compensation attempts to deal with a key moral hazard - between executives and shareholders -- and has received considerable attention recently. Attempts to deal with moral hazard must always balance the diversification risk of the party whose behavior is the focus of control.

Readings: ADWM, Chapter 14, "Principal-Agent Issues and Managerial Compensation"

Tuesday, October 19. 2010
LECTURE 12: Externalities and Common Pool Resource Problems (if time permits)

Background: Certain actions like air pollution create "market failures" because firms do not pay the fair market price for the harm that they cause others, thereby generating so-called "externalities." Appropriate government regulation is one way to correct the problem; under some conditions, the private market can also correct it even without government interference. This class produces insight into when government action is needed to improve the market outcome and when it is not needed.

Friday, October 22, 2010
FINAL EXAMINATION COVERING ALL LECTURES

## Tentative (see Webcafe for most updated schedule)

|  | SEPTEM MGEC 621 TA | $\begin{aligned} & \text { ER } 2010 \\ & \text { FFICE HOURS } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: |
| 13 Monday <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br> Francesc Dilme - JMHH 365 <br> 3-4:30 Janet Lee - JMHH 360 <br> 3-5:30 Jaesung Choi - JMHH 365 <br> Francesc Dilme - JMHH 370 | 14 Tuesday  <br> 12-1:30 Janet Lee - SHDH 1201 <br>  <br> Francesc Dilme - SHDH 1203 <br> 3-4:30 Francesc Dilme - SHDH 1203 <br>  <br> Janet Lee - SHDH 1203 <br> 4:30-6 Francesc Dilme - SHDH 1203 <br> Cindy Soo - SHDH 209 | 15 Wednesday <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br> 3-6 Jaesung Choi - JMHH 370 <br> Cindy Soo - JMHH 360 | 16 Thursday 12-1:30 Cindy Soo - SHDH 209 3-4:30 Janet Lee - 1206 3-6 $\quad$ Cindy Soo - SHDH 1203 |
| 20  <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br>  <br>  <br> Francesc Dilme - JMHH 365 <br> 3-4:30 Janet Lee - JMHH 360 <br> 3-6:00 Jaesung Choi - JMHH 365 <br>  <br> Francesc Dilme - JMHH 370 | 21  <br> 12-1:30 Janet Lee - SHDH 1201 <br> Francesc Dilme - SHDH 1203 <br> 3-4:30 Francesc Dilme - SHDH 1203 <br>  <br> Janet Lee - SHDH 1206 <br> 4:30-6 Francesc Dilme - SHDH 1203 <br> Cindy Soo - SHDH 1206 | 22 <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br> 3-6 Jaesung Choi - JMHH 370 Cindy Soo - JMHH 360 | 23  <br> 12-1:30 Cindy Soo - SHDH 209 <br> 3-4:30 Janet Lee - 1206 <br> 3-6 Cindy Soo - SHDH 1203 |
| 27 <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br> Francesc Dilme - JMHH 365 <br> 3-4:30 Janet Lee - JMHH 360 <br> 3-6:00 Jaesung Choi - JMHH 365 <br> Francesc Dilme - JMHH 370 | 28  <br> 12-1:30 Janet Lee - SHDH 1201 <br>  <br> Francesc Dilme - SHDH 1203 <br> 3-4:30 Francesc Dilme - SHDH 1206 <br>  <br> Janet Lee - SHDH 109 <br> 4:30-6 Francesc Dilme - SHDH 1206 <br> Cindy Soo - SHDH 109 | 29 <br> 12-1:30 Janet Lee - JMHH 360 <br> Jaesung Choi - JMHH 370 <br> 3-6 Jaesung Choi - JMHH 370 <br> Cindy Soo - JMHH 360 | $\begin{array}{ll} \hline 30 & \\ \text { 12-1:30 Cindy Soo - SHDH } 209 \\ 3-4: 30 & \text { Janet Lee - } 1206 \\ 3-6 & \text { Cindy Soo - SHDH } 1203 \end{array}$ |
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